Technical Data Sheet TDS-04-29
Nylofor® 3D PRO XL Panel

1 Scope

This technical data sheet specifies the properties for Nylofor® 3D PRO XL panels made out of galvanised steel wires, welded and subsequently PVC coated.
The panels have round horizontal wires and vertical "V-shaped" ones, see figure 1.
The vertical wires have a barb at one side of the panel.
The V-shapes are bent after PVC coating.

Figure 1: Nylofor 3D PRO XL

The information and data given are typical for the product described. However technical changes are possible without any notice.

1.1 Normative references

- ISO 16120-2: Non-alloy steel wire rod for conversion to wire - Part 2: Specific requirements for general purpose wire rod.
- EN 1179: Zinc and zinc alloys – primary zinc.
- ISO 22034-2: Steel wire and wire products - Part 2: Tolerances on wire dimensions.
- EN 10223-7: Steel wire and wire products for fences, Part 7: Steel wire welded panels for fencing.
- EN 10245-2: Steel wires and wire products / organic coatings on steel wire part 2: PVC finished wire.

1.2 Definitions

- Nominal wire diameter: The diameter in mm to designate the wire.
- Real wire diameter: The average value of the minimal and the maximal diameter, measured in the same section of a straight piece of wire, by means of a micrometer accurate to 0,01 mm.
- Mesh sizes: The distance measured between the centres of two neighbouring wires.
- Line wires: The wires running in the longitudinal direction of the mesh.
- Cross wires: The wires running in the traverse direction of the mesh.

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2 Raw Materials

2.1 Wire rod

See table 1.

Table 1: Chemical composition	
Element	%
C	≤ 0,10
Si	≤ 0,30
Mn	≤ 0,70
P	≤ 0,035
S	≤ 0,035

The designation of the wire rod is based on grade C9D – ISO 16120-2.

2.2 Zinc (Zinc used for galvanisation bath)

Minimum 99,95% of pure zinc is used for galvanising, in accordance with Z3 of EN 1179.

2.3 PVC

The PVC is free of lead, cadmium and DOP.

3 Properties

3.1 Wire diameter and tolerances

See table 2:

Table 2: Wire diameters and tolerances				
	Horizontal wire (mm)		Vertical wire (mm)	
	Core wire	PVC coated	Core wire	PVC coated
Nylofor® 3D PRO XL	4,30 ± 0,06	5,0 ± 0,20	4,30 ± 0,06	5,0 ± 0,20

The tolerances is in accordance with ISO 22034-2.

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3.2 Tensile strength of the wire

Vertical and horizontal wires: Min. 400 N/mm².

3.3 Mesh sizes and tolerances

Mesh spacing is measured between the centres of two neighbouring wires:

Distance between the horizontal wires: 200 mm, tolerance ± 4 mm.
Distance between the vertical wires: 50 mm, tolerance ± 3 mm.

The tolerances are in accordance with EN 10223-7.

3.4 Weld shear strength

Weld shear strength is tested on four welds selected at random from one transverse wire of the panel.

The minimum average weld shear strength value meets the required 50% of the breaking strength of the wire as per EN 10223-7.

3.5 Barbs

Nylofor® 3D PRO XL panels have a barb of 30 mm ± 2 mm at the topside of the panel. (See figure 1.)

3.6 Overhangs

Overhangs: Maximum 2 mm.

3.7 Dimensions of the V-shapes

Number of V-shapes: See table 3.
Dimensions of V-shapes: See technical drawing, available on request.

3.8 Dimensions of the panel

Width: 3000 ± 5,0 mm.
Height: See table 3 and figure 2. Tolerance ± 5,0 mm.

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Table 3: Dimensions of the panel

Overall height of the panel (mm)	Number of horizontal wires	Number of V-shapes
1030	9	2
1230	10	2
1530	13	3
1730	14	3
1930	15	3
2030	17	4
2430	19	4

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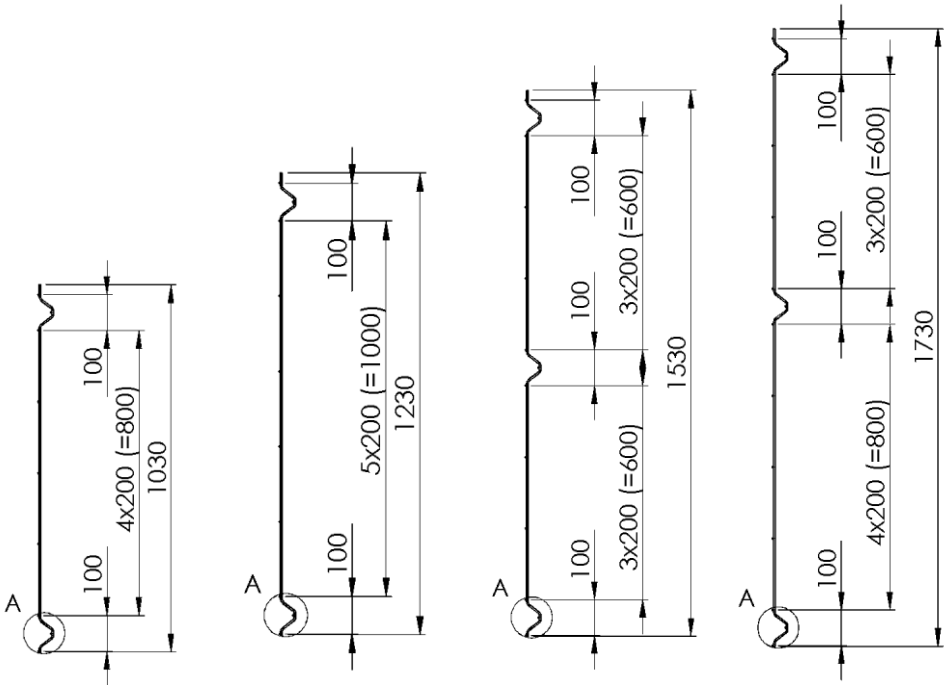

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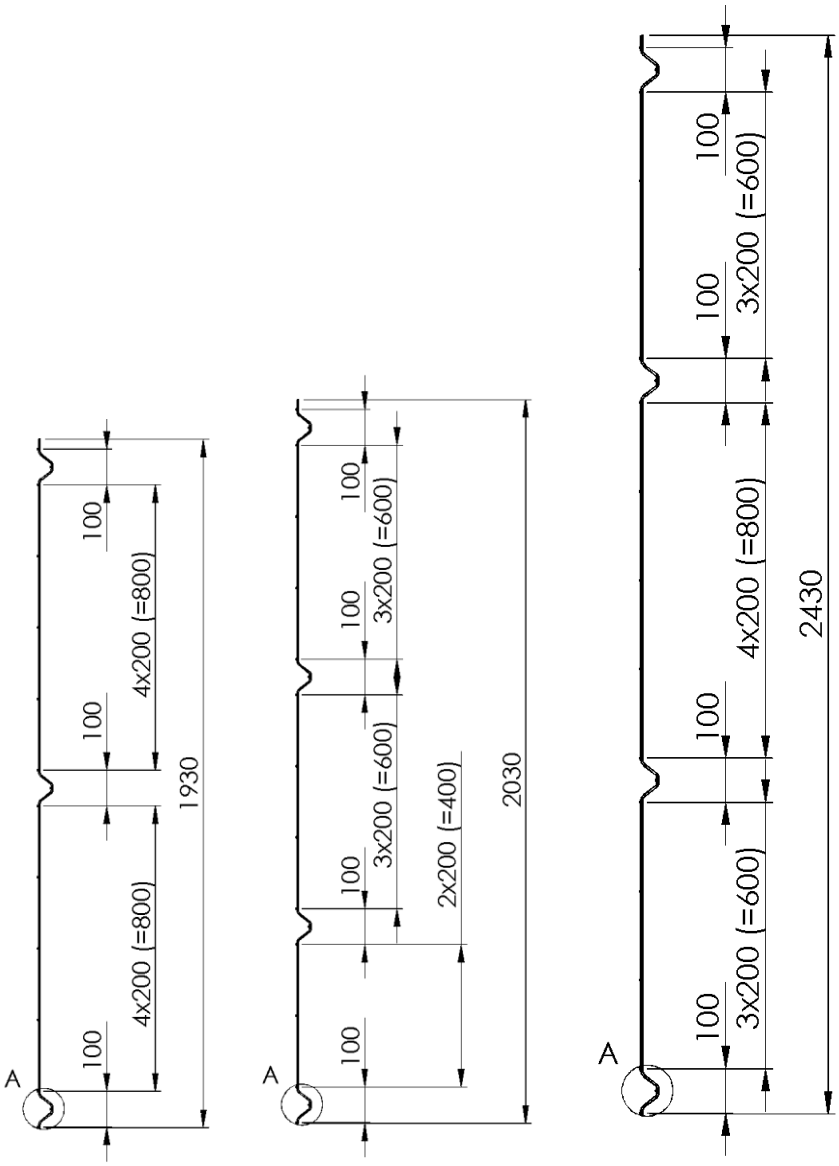
100
4x200 (=800)
100
4x200 (=800)
100
1930
A
100
3x200 (=600)
100
3x200 (=600)
100
2x200 (=400)
2030
A
100
3x200 (=600)
100
4x200 (=800)
100
3x200 (=600)
2430
A

Figure 2.

4 Coating

4.1 Metallic coating

The wires are galvanized and the min. zinc weight for the horizontal and vertical wires is 30 g/m².

4.2 PVC coating

The PVC coating is fused and adhered to a primer that is cured onto the galvanized core wire, thus achieving an excellent bond between wire and PVC (in accordance with EN 10245 part 2 class 2b).

Thickness:
The total layer is minimum 200 µm thick.

Colour: Green RAL 6005.
Other colours can also be ordered.

5 Form of delivery

The Nylofor® 3D PRO XL panels are packed on a wooden pallet, protected by UV resistible stretch or shrink foil.

An identification label with the Sapcode, product description, width and height of the panel, mesh sizes, number of panels, and color shall be put on each side of the pallet.

Number of panels per pallet, weight and sizes: See table 4.

Table 4: Form of delivery for Nylofor® 3D Pro XL panels

Nominal dimensions of the panel (mm)	Number of panels per pallet	Weight of the panel (kg)	Sizes of the forwarding unit L x W x H (cm)	Sapcode RAL 6005
3000 x 1030	50	11,25	303 x 103 x 68	7056346
3000 x 1230	50	13,00	303 x 125 x 68	7056347
3000 x 1530	50	16,60	303 x 153 x 68	7056351
3000 x 1730	50	18,50	303 x 173 x 68	7056353
3000 x 1930	50	20,25	303 x 193 x 68	7056141
3000 x 2030	50	21,90	303 x 203 x 68	7056354
3000 x 2430	30	25,60	303 x 247 x 48	7056355

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